

**(a) 35 USC §102(b) does not require the claimed invention to be
"described in a printed publication"**

On page 5, lines 3-5 of the Answer, the Examiner quotes 35 USC §102(b) as requiring that "the invention [be] patented or described in a printed publication. . . ." Applying the language of the statute to the rejection under §102 of appellants' claims with respect to the Dawes (and Thomas) references, the claimed invention clearly is not "patented" more than a year before the filing date of this application.

Therefore, the only remaining applicability of the statute is that the claimed invention is "described in a printed publication." The Examiner suggests that the "**possibility** of using the friction stir process with aerospace elements" is disclosed in Dawes and that "friction stir butt welding **could** be employed with airframe components" (emphasis added - Examiner's Answer page 4, lines 10-11). The Examiner uses this discussion of possibilities as a substitute for the statutory requirement of "described in a printed publication."

Appellants' invention is not described at any point in the Dawes or Thomas references and the Examiner has not pointed to any such "description" in these references. At best, the Examiner can cite portions of the Dawes reference which suggest that the claimed invention is a "**potential**" practical welding technique (emphasis added - Examiner's Answer page 4, lines 2-3). The existence of the "**possibility**" or that the

invention "**could be**" employed or has "**potential**" practical welding technique is not a sufficient "description" as required by the statute upon which the rejection is based.

On page 5, line 10, the Examiner quotes appellants' statement on page 13 of the Appeal Brief, pointing out that Dawes does not contain "any teaching of friction stir butt welding or any teaching that such welding could have utility in creating appellants' claimed structural airframe components." The Examiner suggests that this statement is puzzling and confusing. While appellants intended both portions of the phrase to be construed in conjunction with "appellants' claimed structural airframe components," appellants do agree with the Examiner that if this modifier was not applied to the first portion of the phrase "any teaching of friction stir butt welding," that the statement could be puzzling and/or confusing.

The Dawes reference does teach "friction stir butt welding" by itself, but, as appellants pointed out, Dawes contains no teaching of friction stir butt welding with respect to appellants' claimed structural airframe components. Thus, the Examiner's puzzlement and/or confusion should be abated by the above clarification.

(b) The teaching of a possibility of does not render obvious a claimed invention

Appellants pointed out in the paragraph bridging pages 10 and 11 of the Appeal Brief that the Court of Appeals for the Federal Circuit has consistently held that "obvious to try" is not a legitimate test of patentability. As noted above, the Dawes reference did not patent appellants' claimed invention, nor did it describe the friction stir butt welding

of aircraft components in any printed publication with respect to appellants' claimed structures and method steps. As a result, at best the Dawes disclosure only suggests that it might be "obvious to try" friction stir butt welding of aircraft components, as these might have some utility and/or advantage over conventional aircraft welding techniques.

The Examiner reaches the various conclusions that Dawes discloses a "**potential practical** welding technique" (Examiner's Answer page 4, line 2), "foresees the possibility of using the friction stir process with aerospace elements" (Examiner's Answer page 4, lines 10-11), that "friction stir butt welding could be employed with aircraft components" (page 4, line 17) (emphasis added in each quote).

Quite clearly, the Examiner is suggesting that appellants' claimed combination might be "obvious to try," but as noted previously, the Court has held that this is not "a legitimate test of patentability" either under §102 or §103 of the patent statutes. The Examiner has cited no case law or statute interpretation which disputes this conclusion or supports his contention that speculation as to the "potential," "the possibility of" or a technique that "could be" employed meets the statutory requirement that the claimed invention be "described in a printed publication."

(c) Ellzey contains no suggestion of the claimed combination

The Appeal Brief's points out that the Ellzey reference contains no suggestion for combination of the Ellzey and Thomas references. The Examiner now appears to admit that Ellzey teaches only lap welding, i.e. where two skin sections are overlapped and then welded together. However, the Examiner suggests that the statement in Ellzey that welds

could be "of different types" somehow supports the combination of Ellzey with Thomas or Dawes. Ellzey teaches only lap welding and does not suggest any suitability for butt welding. Why or how the Examiner believes one of ordinary skill in the art would substitute a "different type" of welding, i.e. butt welding for Ellzey's "lap welding," is not seen.

Appellants previously pointed out on pages 15 and 16 of the Appeal Brief that in order to demonstrate the required motivation for combining references, the Examiner "must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed." *In re Rouffet*, at 1458.

The Examiner has not identified where either Ellzey or the Thomas/Dawes references address the problems of creating aircraft components, and in fact Ellzey teaches use of a non-butt welding, i.e. a lap joint. In order to arrive at appellants' claimed combination of elements, one of ordinary skill in the art would have to ignore the lap joint teaching of Ellzey and, instead, substitute the butt welding technique and then go one step further and determine whether a butt welded technique is suitable for the aircraft industry. Appellants did this, found that the technique had utility in the aircraft industry and filed their initial patent application more than six years ago in England on June 20, 1997.

The fact that the Thomas reference teaches a number of benefits of butt welding does not establish any motivation for ignoring the teaching of Ellzey and instead combining aspects of Ellzey with Thomas and/or Dawes to come up with appellants' claimed invention. Interestingly, the Examiner admits that Ellzey teaches an "outmoded overlapping-weld-process!" (Page 6, line 13). However, it is the Examiner who relies upon Ellzey and suggests that there is some motivation or reason for combining portions of Ellzey with portions of Thomas.

The Examiner provides no indication of how or why he would ignore the lap joint process which is taught in Ellzey. As noted in *In re Fine* at 1600, the Court of Appeals for the Federal Circuit has clearly stated that "one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." The Examiner has simply failed to support his rejection and establish a *prima facie* case of obviousness, as indicated in appellants' Appeal Brief and confirmed above.

Thus, and in view of the above and the originally filed Appeal Brief, the rejections of claims 1, 13, 14, 18, 20, 37-39, 41, 43, 45, 50, 52, 54, 56, 57, 59 and 66 over the cited prior art are clearly in error and reversal thereof by this Honorable Board is respectfully requested.

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